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ABSTRACT OF THE DISCLOSURE

The present invention is directed to a water treatment or purification system and method for providing treated water in industrial, commercial and residential applications.

5 The treatment system provides treated or softened water to a point of use by removing at least a portion of any hardness-causing species contained in water from a water source, such as municipal water, well water, brackish water and water containing foulants. The water treatment system includes an electrochemical device, such as an electrodeionization device, that can have at least one compartment that generates and traps hydrogen ions which can be
10 used in another compartment of the electrochemical device such as, an electrode compartment, to reduce or at least dissolve any scale. Other applications of the system would be in the treatment and processing of foods and beverages, sugars, various industries such as the chemical, pharmaceutical, waste water treatment and power generating industries.

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